method, this application gathers load-statistics and availability from the web servers and effectively redirects the requests transparently to the requesting client.

[114] The HTTP Redirector can be used in different ways to accomplish its tasks. Its interaction with clients and web servers depends on the place it's located, the port it's using for listening and the links defined on the accessed pages at the web servers. Issues regarding server affinity, client sessions, etc, must be handled by the web administrator.

[115] OLE DB-Connection Redirector is a DCOM server packed into a Windows-based executable (OLEDBRedir.EXE). This object is able to keep track of the load-statistic of a set of database servers and to supply a predefined connection string corresponding to the selected database server when requested. This redirector object needs to be alive to monitor the database severs. Therefore, it's necessary that the application be manually started once it's installed. This represents a difference to commonly used automation servers that are automatically activated upon client requests.

[116] The redirector deployment and installation process consists of five main stages:

1. Select nodes for redirector installation
2. Specify server general settings for each node
3. Specify file-transfer and remote-execution settings for each node
4. Execute redirector installation procedure
5. Configure the installed redirector

[117] The remote installation mechanism is built around a Windows application (RSLOSetup.EXE) and a set of auxiliary files that are actually moved to the target node to perform the installation. From this point another mechanism launches the installation process on the remote node. For UNIX/Linux platforms, SLO will be installed as a daemon. For Windows-based platforms, SLO will be installed as a regular application included in the Startup folder for every user.

1. Selecting nodes for redirector installation

[118] Fig. 5A shows the Redirector Deployment and Installation window.

[119] By choosing the control" Select Functional Resource Pool" a list of available FRPs appears from the drop-down menu. "Add Redirector" allows the selection of the IP address for a node that is to be designated as a redirector. "Modify Redirector" allows an existing node to be reconfigured so that a different node takes its place as a redirector, or a

different type of redirector (HTTP or DB) is used. "Remove Redirector" removes a server that is highlighted by the user from the Deployment and Installation window.

[120] "Change configuration" allows the installed redirector to be configured for use once nodes have been selected as redirectors and the file transfer and execution is complete. "Install All the Redirectors" is selected after nodes have been chosen for the installation of redirectors. The Install operation takes the user to the Redirectors Remote Setup window where the transfer and execution of redirector files can commence.

2. Specifying Server General Settings

[121] Once nodes have been selected for redirector installation, the Redirectors Remote Setup window opens.

[122] Fig. 5B illustrates the Redirectors Remote Setup window.

[123] The Redirectors Remote Setup window is used to define the operating system, file-transfer and remote-execution mechanisms for each node. (Nodes are referred to as Remote Servers in this window.) Selecting different file-transfer and remote-execution mechanisms will activate corresponding tabs which will appear behind a General Settings tab, discussed below. These new tabs can require separate configuration, as discussed in detail in the next section. Changes to general settings are reflected in the list of nodes in the left-hand Remote Server field.

[124] Note that certain restrictions apply during this portion the setup. For example, DCOM is only available to Windows platforms. In some cases, selecting the option "None" for an operation mechanism is useful. For example, if the corresponding files are already placed on a node (due to a previous attempt to install or because common drives are used), only remote execution is required.

3. Specifying File-Transfer and Remote-Execution Settings

[125] Depending on the file-transfer and remote-execution mechanisms that were selected in previous steps, one or more new tabs appears behind a General Settings tab. Each tab can be "active" and brought to the forefront by clicking on the tab. Fig. 5C shows the File Transfer Settings for file-transfer protocol (FTP) tab. FTP settings require specifying the FTP username and password (if applicable) and the FTP destination directory. By default an anonymous username and the Home directory are set.

[126] When using SLO, the destination folder where the redirector files will be transferred is required, as shown in Fig. 5D. By default, the files will be transferred to the default remote SLO folder.

[127] When using a shared network drive to transfer files, a Destination Folder must be specified, as shown in Fig. 5E. This folder points to a drive (local to the target node) that is shared along the network and mapped locally (at a central point). Common functionalities, such as mapping a network drive or creating a new folder are included. Note that file-transfer operations are carried out using the current user credentials, which means the current user must have enough rights to perform the operations.

[128] When launching a remote setup using the telnet protocol, as shown in Fig. 5F, username and password are required. The Remote Execution Folder points to a local folder (on the remote server) where the setup files were moved during the file-transfer step.

[129] Redirector configuration is the final step in preparing a redirector for use in a DASPO network. Fig. 5G illustrates a portion of the user interface for preparing a redirector.

[130] A Redirector Listening Port is a port number used by the redirector to listen for HTTP requests. Port 80 is used by web servers to listen and by web browsers to connect. It is recommended that this port number be used for the redirector if the redirector will be performing as a web server. It is important to note that only one application can be listening on one port, therefore the redirector cannot coexist with a web server on the same computer if both are listening through the same port. The Check It! button verifies that the selected port number is available, meaning no other local application is currently listening on this port. When configuring the redirector from iSystem Enterprise, the Check it! button is disabled.

[131] A Functional Resource Pool is the source list of web servers. The SLO Address field refers to an SLO-node installed in one of the computers belonging to the pool. Statistics will be retrieved from a single SLO instead of asking individually. To retrieve the list of servers from the SLO-node the Get Servers button is pressed.

[132] The Server Selection Method directs how servers are selected for redirection. Choices include a web server with Best Statistics or in a Round Robin fashion. Note that a server is not be selected if it doesn't contain the requested object, even if its turn has come up for redirection.

[133] A list of web servers available for redirection is displayed. These are the web servers that might receive transaction requests. Web servers can be added, removed or modified using the displayed list. The Remove Selected button removes a selected web server from the list. The removed server is not be included in any further redirection. The